

ON DYSENTERY

AND ITS

TREATMENT.

BY

HENRY TIEDEMANN, M. D.,

MEMBER OF THE COLLEGE OF PHYSICIANS AND OF THE ACADEMY OF NATURAL
SCIENCES AT PHILADELPHIA.

LIBRARY.

6914
Washington D.C.

PHILADELPHIA :

R. STEIN, PRINTER, S. E. COR. 3D & CHESTNUT STS.

1857.

WC

T'5596

1537

Film 7351. 24mm. 1

TO THE
COLLEGE OF PHYSICIANS,

Respectfully Dedicated

By

THE AUTHOR.

For many years I have been collecting materials on the subject of dysentery, with the intention of combining them to a whole, and preparing them for publication. They consist of extracts from medical literature, of communications from other physicians, and of my own observations.

Want of time prevents me from arranging these materials at present, and I do not know when I shall succeed in laying them before the medical public. In the mean time, I take the liberty of communicating an extract from these materials in the following pages, the principal object of which is, to make public my treatment of dysentery, and to bring it into more general use.

ON DYSENTERY,

AND

ITS TREATMENT.

Dysentery is an inflammation of the submucous tissue of the alimentary tube, followed by infiltration, both of which extend to the mucous membrane, and generally causes its destruction by forming ulcers, and undermining ulcerations. Usually it begins in the rectum, very often spreads into the colon, more rarely, as far as, or further than the small intestines.

It is nowhere denied, that in dysentery we find an inflammatory affection of certain parts of the rectum, colon, &c.; all authors acknowledging the inflammation having affected both the mucous and the so called submucous membrane. The question to be decided is, in which of the two membranes the inflammation originates, and then communicates or spreads to the other. The theory of the original affection of the mucous membrane, has its authorities and adherents, as well as the theory of the original affection of the submucous tissue.

My views on this point are based upon the symptoms of the disease, particularly the tenesmus, which, at all times, is the result of the hyperæmic, inflamed and infiltrated submucous tissue. The original inflammation or even the hyperæmia of the mucous mem-

brane, of itself neither produces nor explains tenesmus, which frequently is one of the most reliable symptoms of the commencement or the existence of dysentery. Also the discharge of the transparent mucus, not mixed nor stained with blood, and often continuing so to the termination, is not the result of the affection of the mucous membrane. As soon as the mucous sedes are mixed with blood, a circumstance often taking place in the very beginning of the disease, we may conclude that it has also attacked the mucous membrane. Where there is no admixture of blood, the disease is limited to the submucous tissue; this is frequently the case during the whole course of the disease, and seems to be a predominant symptom of some epidemics.

To attribute the cause of dysentery to miasma, and its location in the rectum or catarrh, is arbitrary; the supposition of miasma, this happy invention to fill up some of the blanks in the doctrine of etiology, can no more be established in this case than in any other, and the catarrh, only apparent, is proved neither by the course of the disease, nor by the result of pathological anatomy.

No more is dysentery a malarious disease, or does it bear any affinity to the intermittent fever. What we can do with the so-much-talked-of malaria, is hard to tell, for nowhere has it ever been proved to exist. To explain the exciting cause of an intermittent, or marsh fever, we may admit of malaria, but to look to malaria as the exciting cause of

dysentery, is at least entirely superfluous, and can only serve to lead us astray. The inference that there is an affinity between dysentery and intermittent fever, because both these diseases are frequently found in the same localities, is erroneous, for it has not even been established, that the same causes will produce them both, though they may appear in the same place and at the same time.

To suppose a dysenteric krasis or toxicoses, as the exciting cause of dysentery, is entirely wrong; this special krasis is imaginary; no where has it been proved to exist. A krasis can only be assumed, when dysentery has existed for a considerable time, as an effect, but not as a cause of the disease, and would scarcely be distinguishable from another krasis.

The first symptoms of dysentery subjectively are limited to the rectum; a feeling of fulness and heaviness as if it were distended by fæces and overloaded with them; therefore frequent but ineffectual, yet painless urging to stool. We rarely see a patient in this stage, as, with the exception of these sensations, he finds himself generally too well to consult a physician, and very often has recourse to some purgative or quack medicine, upon the nature of which it depends, whether it will alleviate these sensations, or hasten and aggravate the dysenteric process.

In cases where dysentery is preceded by diarrhœa, the latter has no connection with the former, but as it is often the case, when persons prescribe for them-

selves, the improper treatment of diarrhœa may occasion dysentery. Diarrhœa, however, most assuredly is not a prodroma of dysentery, on the contrary, when properly treated, and with care on the part of the patient, it may prevent the outbreak of dysentery.

The first symptoms, mentioned above, are caused by hyperæmia in the rectum, which part of the intestines, on account of the abundance of its vessels, of its distance from the central organ of circulation, of its perpendicular position in the pelvis, is highly predisposed for it; the same causes favor the commencement, and further developement of hæmorrhoids. The hyperæmia develops itself, first, in the capillary system of the rectum, is of a purely mechanical character, and is produced by the interrupted circulation in the Vena portarum. I cannot conceive what should produce the so-called congestion to the rectum, which is said to indicate the commencement of dysentery; for to suppose that a catarrh should intervene to confine the dysenteric malaria, which had been received into the body, to the rectum, is absurd; it appears to me, however, that we can explain the developement of a hyperæmia in the capillaries of the rectum, as the exciting cause of the dysenteric process, but not as the first symptom of dysentery, for this hyperæmia may pass over without turning to dysentery.

The hyperæmia in the capillary system of the rectum is caused by the repletion of the large veins

in the liver, and by the disturbance of the circulation in these vessels. Anatomy accounts for the connection between the vessels of the rectum, particularly of the veins and the system of the Vena portarum; upon this we base the physiological, pathognomonic and pathogenic influence of the liver on the generation of dysentery. A similar influence of the liver on the origin of haemorrhoids is better known; this disease, both in its origin and symptoms, bears a striking resemblance to dysentery. During a prevalence of the latter, it is often very difficult to say, whether a patient suffers from a violent attack of haemorrhoids or from dysentery; although I have never seen a person, subject to haemorrhoids, being attacked by dysentery, unless they had been checked in attempting to cure them, or had disappeared of their own accord; in the latter case the attack of dysentery generally caused them to return, whilst the dysentery itself was of a mild character and of short duration. If during the prevalence of dysentery, a case presents itself, where we doubt whether it is this disease or an attack of haemorrhoids, the fact of the patient being subject to these or not, will settle the question at once. But, notwithstanding the great resemblance, nay, affinity between these two complaints, they differ in some respects; dysentery being with regard to haemorrhoids extremely acute; the seat of the latter is principally in the distending veins, whilst the former seems to involve in its process the whole of the capillary vessels of the rectum, colon, &c.

The interruption of the venous circulation in the liver, with otherwise healthy individuals, during summer, is caused by increased venosity. In this season, all the tissues of the body, and in some measure, all the organs expand, consequently also the liver. This expansion of the liver is not only owing to the higher temperature, but also to the slower circulation of the blood in its overcharged veins. The disturbed circulation in the veins of the liver, must necessarily cause a disturbance of circulation in all the veins of the abdomen, which will extend to the capillary vessels, and under circumstances, favorable to the disease, may generate the hyperaemia as a precursor of dysentery.

Dysentery generally makes its appearance, when after a long continued dry and hot period, the weather suddenly becomes wet and cool, for which reason dysentery is endemic in those tropical regions, where the sea-winds render the nights very cool, as in India and Senegal. In Algiers, very hot days are frequently succeeded by very cold nights, consequently dysentery prevails. The heavy dews in Algiers have nothing to do with the appearance of dysentery, they being the effects, not the causes of the change of temperature. Altogether the wet weather itself has no influence, but generally the sudden changes of temperature in summer and autumn, are produced or accompanied by rains, and those who sought the exciting cause of dysentery in a catarrh of the rectum, required cool and *wet* weather, otherwise the catarrh would not have appeared. The principal cause is cold, with its

influence upon the tissues and organs. The influence of sudden cold upon the liver must be the contraction of its tissues; the effect of this contraction, very often, is only the frequent status biliosus, an overflowing of bile into the duodenum and the stomach; in a measure, the bile, by the contraction of the liver, is pressed out of the tissues of the liver. This stat. bilios., a frequent attendant on dysentery, indicates the propriety of administering emetics, which are not applicable in all cases of dysentery. But the contraction of the liver and of its vessels also affects the circulation of the blood in the abdominal veins, even to the capillaries, and must produce the most injurious effect in that part of the intestines which is most remote from the liver. This part is the rectum, in which, on account of its almost perpendicular position in the cavity of the pelvis, the return of the blood is more difficult and favors the developement of hyperaemia to a still greater extent. This hyperaemia first produces a narrowing of the intestinal canal, and consequently the sensation of pressure and fullness, as if the rectum were overcharged with faeces. This erroneous impression by reflex-action causes an increased urging to stool. Next the submucous tissue becomes infiltrated and tumid, and the mucous membrane is excited to an increased secretion. This infiltration presses the mucous membrane of the duct closely together, the passage is entirely closed, and *tenesmus*, the first characteristic symptom of dysentery, is the result. A general febrile reaction, gastricism and other minor or more important symptoms ensue.

The further extension of dysentery, from the rectum into the higher parts of the intestinal canal, depends upon the mechanical progress of the hyperaemia into the capillaries and the infiltration into the submucous tissue, and is explained by the arrangement of the veins in the duplicatures of the peritoneum.

During the further course of dysentery, the mucous membrane must necessarily become involved in the morbid process; the deep transverse folds of the mucous membrane, embedded in the submucous tissue, are always affected first. This proves again that it is not the mucous membrane where we have to look for the origin of the disease, for we cannot comprehend, still less explain, how a diseased mucous membrane can consist alternately of diseased and healthy portions, as we find it in dysentery.

As long as the mucous membrane is not involved in the disease, we find the peculiar dysenteric evacuations which form the *second characteristic symptom of dysentery*. When the mucous membrane becomes involved in the process of the disease, it soon shows its morbid action by the admixture of blood, generally of a light colour.

The constipation is mechanical, and caused by the narrowing of the intestinal tube, but not by an imaginary state of paralysis of the intestines, a supposition which is without any foundation for the two first stages of the disease.

The further course of the disease is in proportion to the progress of the inflammation of the submucous

tissue and the mucous membrane, the formation of ulcers with undermining passages in the submucous tissue, croup-like secretions, whence the erroneous idea that dysentery is a sort of croup. Pus and ichor are poured out, and not unfrequently typhoid phenomena appear as an effect of the resorption of these secretions, but not as constituting a separate species of dysentery.

The adoption of different species of dysentery has by no means contributed to the better understanding or more successful treatment of the disease, and will often confuse the young practitioner, who does not unfrequently consult his manuals. These species, for the most part, are indeed nothing but unmeaning differences, founded on mere contingencies. The erethic, the catarrhalic, the synochal, the inflammatory, the bilious, the gastric, the verminous, the mucous, the bloody, the rheumatic dysentery is always the same disorder, differing only in intensity or it is accompanied by circumstances, depending upon the constitution, the former mode of living, and the temperament of the patient; upon the weather and season of the year; or they are such as may occur in almost any disease, at most, presenting an unessential complication, but by no means a separate species.

In praxis, the bestowing upon these complications the character of separate species, has the disadvantage, that too much attention is directed towards them, whilst not sufficient importance is attached to the disease itself, whereby much precious time may be lost. When dysentery takes a favorable turn, these com-

plications will either disappear or continue to exist without having any material connection with dysentery.

More importance might be attached to adynamic, paralytic, neuromparalytic, putrid, septic, typhous and scorbutic dysentery, but even these, on closer examination, lose their importance in the formation of new species. They all depend upon a predisposed condition of the system. The typhous dysentery results, not seldom, from the long continuance of dysentery. Common dysentery, at a time when typhous diseases prevail, may assume, even in the earlier stages, the typhoid character, and under these circumstances, I invariably found that as the typhous symptoms increased, dysentery decreased. In fact a coexistence of these two diseases seems to be impossible, but not a change from the one to the other. We often meet with cases, where violent attacks of dysentery are accompanied by typhous symptoms, and also cases, where typhus is accompanied by phenomena of dysentery, circumstances which may have led to the idea, that both diseases could attack the same individual at one and the same time, where we should rather consider the one to be a mere complication of the other. If the co-existence of both diseases were possible, a supposition which I positively deny, the symptoms of the two would so intermingle, that their separation to construct a diagnosis of one or the other of these diseases would be utterly impossible. The assertion that in such cases, the typhous

process always follows the dysenteric process, is incorrect, as dysenteric symptoms, after typhus has run its course, are not uncommon. No doubt others, as well as myself, have observed, that sometimes long continued dysentery produced a typhoid condition, which prevailed for some time, during which dysentery retreated in the back ground, and that after the typhous state had ceased, dysentery continued its former course without any typhous symptoms.

It must appear rather strange, that in all the species of dysentery, described in manuals, the existence of inflammatory symptoms in the rectum has been admitted and represented as peculiar, and that notwithstanding, this inflammation, constant as is its appearance, has never been acknowledged as the essence of the disease. The inflammatory symptoms, in a higher or lower degree, are always sufficiently determined in all species of dysentery, whilst all other phenomena, indicative of particular species, are variable. This circumstance, of itself, ought to make us suspect the propriety of admitting so many different species, and should convince every unbiased mind that the species named and described in medical treatises, have no actual existence, that they can only be complications or modifications of the same disease, which therapeutically merit attention, but do not deserve the importance of separate species.

Dysentery, like any other disease, ought to be known by its symptoms; but when we read in treatises on pathology, the symptoms of dysentery in its

different stages and species, we find that the majority of them apply to a number of other diseases, as well as to dysentery. I know only of two symptoms which are characteristic of dysentery, and which always suffice to recognize the disease. *The first is tenesmus, the second, the evacuations.*

Both these symptoms must occur together, to establish a case of dysentery. Tenesmus, without the characteristic evacuations, constitutes no more dysentery, than the characteristic evacuations without tenesmus would entitle the disease to be called dysentery. In the different stages of the disease, the tenesmus also assumes a different character.

In the 1st stage, tenesmus is seldom intermittent, not even in the mild cases, it is only more bearable. In the more violent, as well extensive as intensive cases, the tenesmus is exciting in the highest degree, and truly torturing, and the discharge of inodorous mucus, mixed with white spheroid granules, with or without blood, gives no relief. As soon as tenesmus becomes distinctly intermittent, the disease is either on the decline, or it has entered on—

The 2nd stage. The tenesmus is accompanied by a high state of anxiety, not by excitement as in the first stage; every evacuation is followed by great exhaustion, and violent burning in the rectum, from the anus upwards, whilst tenesmus comes and goes with distinct intermissions.

In the 3rd stage, the intermissions are of longer duration, the tenesmus is preceded by greater anxiety,

and the evacuation by prostration, even to fainting. The burning sensation in the anus and rectum diminishes.

These three stages do not always appear in this pure and decided form, as the three stages are sometimes or generally found in different parts of the intestines.

The symptoms of tenesmus are explained by the anatomical results of the three stages.

In the 1st stage, inflammation and a spongy condition of the submucous tissue; *discharge*: mucus with or without blood, and occasionally with balls of scybala.

In the 2nd stage, decided sympathy of the mucous membrane and commencement of ulceration; *discharge*: shreds of the lining membrane of the intestines, brownish mucus, more liquid, and colored with blood, rarely mixed with pure blood.

In the 3rd stage, extension and deep ulceration of the mucous membrane, and undermining ulceration of the submucous tissue; *discharge*: blood, mixed with pus, shreds of necrotic cellular tissue and ichor.

The evacuations, however, do not always correspond with that described in each of the three stages, and not unfrequently we find in one evacuation, the discharges belonging to two or three stages at the same time, as all the stages can exist at once, in different portions of the diseased intestines.

It is as erroneous to ascribe tenesmus to the pass-

ing of the dysenteric excrements, as to an irritation of the mucous membrane of the rectum.

Tenesmus is caused, as before stated, by the infiltration of the submucous tissue, which, by its swelling, mechanically narrows the passage of the intestines. In the beginning of the disease, this swelling causes irritation and contraction of the muscular tissue, whereby the intestinal tube is still further narrowed; so that, in the progress of the disease, paralysis of the muscular tissue of the intestines, principally of the rectum, may supervene. The infiltration of the submucous tissue, which appears in mammillated (hump-like) protuberances on the mucous membrane, mostly in the direction of the transverse folds, causes the parietes of the intestinal tube to swell in such a manner against one another, that they come into the closest contact, and that the passage is completely shut up. This closely compressed mucous membrane causes great urgency to evacuate, as if the rectum were filled with fæces, which by violent contraction, a real reflex-motion, it were striving to remove, as I have stated above; the consequence of these efforts are tenesmus and the peculiar dysenteric evacuations.

The prolapsus of the mucous membrane of the rectum, or of a part of the entire rectum, is said to be occasioned by violent contractions of the muscular tissue of the rectum, also by too violent contraction of the sphincter. The contraction of the muscular tissue can only produce prolapsus, when there is, at the

same time, relaxation of the sphincter; the violent contraction of these muscles must, of course, prevent prolapsus. Prolapsus recti, however, seldom occurs in the commencement of this disease, and only when the patient is weakly, and the inflammatory irritation of the muscular tissue of the intestines passes rapidly over into paralysis, which is communicated to the sphincter. In very violent or badly treated cases, with persons who are not otherwise weakly, an early paralysis of the muscular tissue of the intestines, and of the sphincter, may cause prolapsus recti, a symptom which always indicates danger. Generally, however, the prolapsus appears in a more advanced stage of the disease, when the inflammation cannot be abated, or when it changes to paralysis by the partial destruction of the muscular tissue, and extends to the sphincter. This prolapsus does not unfrequently occur before death. In all cases of violent dysentery, I found, on examination of the anus, which at the beginning of the disease had been firmly closed and red, the same more or less opened, so that the tumid and highly reddened mucous membrane of the rectum could be seen. At the same time the most violent tenesmus continued. This shows conclusively, that the prolapsus recti is not caused by the spasmodic contraction of the sphincter.

As to the pathological anatomy, I shall only dwell upon the most prominent points. Rokitansky's four degrees of dysentery are arbitrary divisions, without any practical value; but from all these different

degrees it is evident, that the affection of the sub-mucous tissue is, at least, very essential, nay, we may even say, that it is primary, and that the affection of the mucous membrane is secondary. It appears to me to be an error, that in the second degree follicular ulcers should form, and, in the third, extensive ulceration, from which statement we might conclude that the follicular ulcer changes to the so-called dysenteric ulcer, which certainly is not the case; on the contrary, I am induced to assert, from my observation, that the dysenteric ulcer, already in the second degree of the disease, has its peculiar character. In the transverse folds of the mucous membrane, where it is imbedded in the submucous tissue, the formation of the ulcer commences in larger or smaller bands or streaks of inflammation; these ulcers have no resemblance with the round follicular ulcers. The base of the ulcer is in the submucous tissue, or after its destruction, on or in the muscular tissue.

The margins, formed by the mucous membrane, are irregular, indented, sometimes sharp, sometimes grooved-like, sometimes tumid and swelled, at other times relaxed, pale, or of a dirty grey, mostly *undermined to a greater or smaller extent*. The passages are frequently very considerable, and the ulcers so extensively covered by the mucous membrane, that they can only be examined by pushing back the mucous membrane, when they may often be traced through large portions of the submucous tissue. On the sur-

face of the ulcers, the mucous membrane, mostly tumid and infiltrated, lies loosely, and where the ulceration is exposed, elevated and lacerated strips of mucous membrane frequently form wider or narrower bridges.

Prof. Engel asserts that every dysenteric process commences by *congestion* in the rectum or colon, etc., which can only be distinguished from the *catarrh* by its intensity; that in the commencement of the affection, plastic lymph or serum of the blood is infused *between* the coats of the intestines, and that, afterwards, a coagulated formation appears on the surface of the mucous membrane.

The congestion of the rectum, colon, etc., as the first symptom of dysentery, is certainly not supported by facts, but has only been taken for granted, as the frequent prodroma of any inflammation. Assuredly, no subject has ever been dissected, where this congestion of the colon could have been considered as a certain precursor of dysentery. Congestion is never the precursor of a disease, without being accompanied by febrile reaction, yet cases of dysentery are not uncommon, where we find the most distinct symptoms of the disease, without any fever; this state, therefore, may be better attributed to hyperæmia, a passive condition of the vascular system, than to a congestion, which would require an active participation of the vascular system. Under favorable circumstances, hyperæmia can develop an inflammation just as well as congestion. It will surprise

nobody, that in a later stage, when hyperæmia inclines or has changed to inflammation, congestion on the inflamed part should ensue. If plastic lymph or serum of the blood first appears *between* the intestinal coats, and afterwards a coagulated growth on the surface of the mucous membrane, it certainly proves, that the affection between the intestinal coats is older than that on the mucous membrane. According to *Engel*, dysenteric ulcers originate in the following manner:—The coagulated growth or product attaches itself to the surface of the mucous membrane, and becomes necrotic, in consequence of which, also the mucous membrane becomes so, by which process the dysenteric ulcer is formed. According to *Engel's* own opinion, and contrary to his theory of the beginning of dysentery, the formation of the growth does not take place until in the beginning of the disease, plastic lymph and serum of blood have been infused between the intestinal coats.

This shows that the growth on the surface of the mucous membrane depends, at least, to a certain degree, upon the infusion of plastic lymph or serum under the mucous membrane, in the sub-mucous tissue. *Hauff* always observed, that where the coats of the intestines had thickened, the sub-mucous tissue was most affected. According to *Siebert*, the ulcers are developed from the isolated eminences, which are called “*Quaddeln*,” always situated on a circumscribed thickening of the submucous tissue,

and seem to rise from this, giving to the mucous membrane its rugged or mammillated appearance. On these eminences the mucous membrane gradually perishes, and the dysenteric ulcer forms, spreading under the margin of the destroyed mucous membrane, and frequently forming cavities and channels from one ulcer to the other, under the mucous membrane.

From the manner in which the dysenteric ulcer is formed, it seems to be pretty evident, that the sub-mucous tissue is the part, which is originally affected by the disease.

If I were to enter further into this subject, I should only repeat what others have said or written, not having had many opportunities of making dissections on individuals who died of dysentery. During the last six years, I have not lost one patient with dysentery, since I have adopted a new method of treatment, which I am going to describe in the following pages.

TREATMENT OF DYSENTERY.

The difficulties which physicians have experienced in the treatment of dysentery, become evident when we look at the number of remedies, all of which, as we are assured, at certain times, have been found most efficacious. But when we see how many dysenteric patients remain ill, and what time they consume in convalescence, we should almost suspect that the treatment is not what it ought to be ; sometimes

we might even be induced to believe that the patients recover in spite of the treatment.

Specifics for dysentery we have no more than for any other disease. Of all the remedies which still enjoy a sort of stereotyped application, the following are deserving of particular notice.

1. The preparations of *mercury*, particularly *calomel*, which is so great a favorite, and by many physicians is prescribed in any disease, when they do not know what else to give, in dysentery, acts as a cooling, antiphlogistic purgative, and, besides, is said to have some direct influence upon the liver. With these qualities, calomel is undoubtedly valuable in dysentery ; but the question is, whether it is necessary. This I deny altogether, and have never made use of it in this disease. In the treatment of dysentery, at least, we can find substitutes in other salts, which have all the required qualities, without producing the secondary, often very annoying effects of calomel, on the system. The same may be said of the other preparations of mercury ; even the external application of the blue ointment is not necessary.

2. *Ipecacuanha*, which, undeservedly and incomprehensibly, had acquired the reputation of a specific, has long since, and very properly, ceased to be regarded as such. Its effects could only be beneficial by exciting vomiting, in cases where it was required to free the stomach of bile and other contents, and where, at the same time, the emptying of the gall-

bladder, and the emotion of the liver, would revive the torpid hepatic functions. Where Ipecacuanha was not given in doses to produce vomiting, a continued nausea, and the inducing of perspiration in light cases, have often mitigated the disease; for this latter purpose, or as an emetic, I have prescribed it often with good effect.

3. A great deal of downright mischief is done by *opium*, and other *narcotics*. Scarcely a prescription can be found, in which opium, in some shape or other, or some other narcotic, does not form an ingredient. Dysentery indicates narcotics neither more nor less than any other disease, and according to my experience, it should be given with more caution in this disease than in any other. It is true it relieves the patient of the morbid sensation, but it does not cure the disease, and has the important disadvantage, that by its anodyne and soporific effect, it is not only apt to deceive the patient, but frequently the physician himself, as to the true state of the disease. It promotes the venosity of the blood, diminishes its circulation, increases the paralytic-like condition of the peristaltic motion, and contributes to prevent the evacuations, effects which are all unfavorable to dysentery. Only in a few cases I have prescribed it with the intention of soothing the extreme restlessness of two nervous ladies. Even to sustain the antiphlogistic treatment, it is not necessary. Other narcotics can be avoided just as well; the best anodyne are cold and even ice-cold injections

of water into the rectum.

4. *Cooling purgatives*, to produce evacuations, and to promote the circulation in the abdomen, are of some service, but they have no direct effect upon the disease.

5. *Tonic, astringent and balsamic remedies* for dysentery itself, are useless ; but in the third stage, which bears more the character of the result of the disease, and in the sequelae, they may become very proper remedies. Much mischief is also done by administering *sugar of lead*, which, even combined with opium, is very often ordered long before the proper time.

6. *Croton oil, creosote, resin. sumbuli, rheum, nux vomica, simaruba, colombo, demulcentia, involventia*, etc., *alkalis and acids*, etc., and a number of other remedies, which we can scarcely mention, without wondering at the notions that have entered the heads of physicians, when in trouble about their patients.

7. *General and local bleeding*, I have never found necessary, with my treatment, but I admit that it may be of use.

8. *Warm, general and local baths*, as well as *local vapor baths* of all sorts, are quite useless.

9. *Injections* are in general use. *Injections of Starch* with or without *laudanum*, I think, should be discarded altogether, because the starch forms a covering, soon coagulating into crusts, which instead of healing the sores in the rectum, as it is pretended, can only irritate and aggravate them. The added

laudanum will afford relief only for a short time. *Injections of a decoction of linseed*, or any other *mucilaginous substance* are less injurious, although they do not justify their reputation. *A decoction of oak bark*, administered as an injection in the first two stages is actually injurious, as also a solution of *nitrate of silver*, *acetate of lead*, *alum*, or an admixture of *iodine*, *chloroform*, etc.; their effect is not equal to that of pure cold water, which simply diminishes the inflammation, removes the morbid secretions and produces no secondary effects.

As dysentery, in the first two stages, is a hyperæmia of the capillaries (of the rectum and colon, and seldom of other parts of the intestinal tube,) induced by the disturbed hepatic venous circulation, followed by infiltration and inflammation of the submucous tissue, which in the further progress is communicated to the mucous membrane and changes to ulceration, it distinctly indicates in these two first stages a general and local antiphlogistic treatment.

The *internal* remedy which I have almost exclusively prescribed and frequently with surprising success, is *Nitrate of Potassium*, (*kal. nitr.*) a salt to which very little attention is paid now-a-days, because it is too old, and only novelties deserve notice and gain reputation and wealth, etc. I have given it in large doses which agreed perfectly well with the patients. *Locally*, I have ordered, immediately after each evacuation, no matter how often they occurred, *injections of pure cold water*. As diet, I ordered milk, gruel, barley, rice-water, toast and water and pure

water, buttermilk as much as the patient liked to take. This treatment agreed with *Americans* as well as with *my countrymen* or any *other foreigners*.

The *Nitrate of Potassium* and the *injections*, I continued until the tenesmus had ceased, which, in the majority of cases, happened in from 6 to 12 hours; as the tenesmus diminished, the mucous and bloody evacuations also diminished, and when it ceased, they generally disappeared entirely.

Before I ordered the Nitre I considered the state of the digestive organs, which either required an emetic or a purgative, or were in such a condition that nitre could immediately be given. If during the treatment with nitre and the injections of cold water, evacuations of fecal matter did not occur, at least once in 12 hours, which usually was the case, I recommended a corresponding dose of castor oil.

In the two first stages of the disease, for every age, both sexes, every constitution, to persons of every mode of living or occupation, in every epidemic, every season, every so-called species of the disease, this treatment has proved applicable and has often been crowned with surprising results.

When the tenesmus was overcome, when the characteristic mucous dysenteric evacuations had ceased, when the fever had disappeared, and the fecal evacuations were natural, (all of which I have often accomplished in less than 12 hours,) I gave a solution of *sulphate of quinine* and on the third day, I often allowed a better diet to the patient; the injection after each evacuation, I ordered to be continued for a

few days longer ; if regular evacuations did not take place, I ordered castor oil to be taken from time to time. In very severe cases, particularly in hot weather, I ordered ice water to be injected after each dysenteric discharge, which relieved the patient almost immediately.

Of more than 300 patients, which I have treated in this manner, in the past six years, I have lost none. There were only two very sensitive ladies, who were very ill, to whom I was obliged to give narcotics ; this however was not called for by the disease, but by the constitution of the patients.

In the two first stages, I have never given sugar of lead or any of the other usual remedies. When the skin was inactive, I ordered nitre to be dissolved in an Infus. rad. Ipecac., and sometimes added camphorated water.

Under this treatment, when I was called in time, the disease seldom reached the second stage, never the third ; the patient recovered very fast, probably because the disease was not of long duration. I have had but few cases, where it lasted longer than 7 days ; only one lady was ill to the 14th day, although the dysenteric symptoms had ceased on the 7th day ; she was pregnant in the second month, but did not miscarry. Most cases had already changed so favorably on the third day, all the dysenteric symptoms having ceased, that no more medicine was required, and I could leave the patient, merely ordering a proper diet for a short time to come.

In the 3rd stage which, as above stated, none of my

patients reached, the treatment was naturally different. The injections of pure cold water were made however the same, as in the other stages, but internally, I prescribed quinine, tanin, acetate of lead, etc., generally with opium, accordingly as the case seemed to require the one or the other remedy. In connection with these, to promote the very necessary evacuations, I prescribed daily a dose of castor oil, and did not hesitate, in time, to strengthen my patients by a nourishing diet.

Although I am not acquainted with the tropic, camp and so-called other dysenteries, except from reports, I am, notwithstanding, of opinion, that in these also my mode of treatment would be useful.

I beg leave to call upon my brother physicians, to apply the described treatment in cases of dysentery, and to communicate their experience to the medical public, as I have done, for the sake of suffering humanity.

Philadelphia, January, 1857.

